



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,913	05/10/2002	Hiroshi Yamakawa	208524US3PCT	1931

22850 7590 02/15/2005

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

LOPEZ, CARLOS N

ART UNIT	PAPER NUMBER
----------	--------------

1731

DATE MAILED: 02/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

~~00/001,918~~

09831913

Applicant(s)

SATO, KAZUNORI

Examiner

Carlos Lopez

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
4a) Of the above claim(s) 6-10, 14-16, 19, 20 and 22 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-5, 11-13, 17, 18 and 21 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1731

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 11-12 and 17 are rejected under 35 U.S.C. 103(a) as being anticipated by GB 836,560 ('560). The '560 patent discloses an apparatus for bending a glass sheet. As shown in figure 4, a tunnel like heating furnace comprises a bending mold "M", integral roof heaters 54 deemed as the claimed first group of plurality of heating elements, and heaters 88 which are deemed as the claimed second group of plurality of heating elements attached separably to the inner wall surface of the heating furnace. As further noted in lines 62-78 of '560, heaters 88 are raised and lowered by a support housing, thus reading on applicant's claimed structure on which the second of plurality of heaters are mounted.

The reason for raising and lowering the heaters 88 is to provide intense radiation to areas of the glass sheet that requires a severe bend (Page 1, Lines 79-87). Since heaters 88 are electrical heaters (See Page 3, lines 58-59 and lines 65-73), it is inherent that the temperature of each heater may be individually controlled as claimed by applicant by regulating the supplied voltage as similarly done to the first group of heaters (See Page 2, lines 80-89).

As for claim 2, the heaters 88, deemed as the second group heaters, may be used to heat one portion of the glass sheet to a greater temperature than another

portion and the position relative to the glass may be adjusted (Page 1, lines 54-61 and lines 70-78).

As for claims 3-4, 11-12 and 17, as noted above the crease heaters are suspended by cables 90 and 91 as shown in figure 3 and, as noted above, its distance relative to the inner ceiling wall may be adjusted in order to control the intensity of radiation being applied to the glass (see Page 1, lines 54-61 and lines 70-78).

Claims 5, 13, 18, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 836,560 ('560) in view of Kamata (US 6,347,535). As shown in figure 9 of '560 the second group of heaters are heating plates'650 is silent disclosing that a heating plate is at the face side of a heater wire. However, as shown by Kamata, heating elements having a heating plate have heater wires col. 18, lines 35-42. Thus at the time the invention was made it would have been obvious to a person of ordinary skill in the art to have provided a heater wire to a heating plate of a heating element of '560 as taught by Kamata in order to provide a heat source to the heating plate. Additionally while Kamata is silent disclosing how the heating plate is arranged with the heater wire, it would be obvious to a person of ordinary skill in the art that the heating plate would be on the heating face side of the heater wire to thus be able to heat the heating plate. Hence, in view of the teachings of Kamata, conventional heating elements of a heating plate type have heater wires at its heating face side in order to provide a heat source to the heating plate.

Art Unit: 1731

Response to Arguments

Applicant's arguments filed 11/26/04 have been fully considered but they are not persuasive. Applicant argues that GB '560 does not disclose heating elements mounted on a movable structure in which each element may be individually controlled. Gb '560 does disclose heating elements mounted on a movable structure as noted in page 1, lines 75ff. In regards to the claimed limitation that the heating elements are individually controlled, it is deemed that the electrical heating elements 88 of GB '560 may be individually controlled by controlling the amount of supplied power. Claim 1 only requires that the bending apparatus have second group heaters that are capable of being individually controlled, a feature that is clearly capable of being done by the electrical heaters of GB '560 by controlling the voltage supplied to the electrical heaters.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Application/Control Number: 09/081,913⁸³¹⁹¹³
Art Unit: 1731

Page 5


the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lopez whose telephone number is 571.272.1193. The examiner can normally be reached on Mon.-Fri. 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571.272.1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CL


STEVEN P. GRIFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700